

# Timeless Treasures who Shaped Today's Glorious Nuclear Medicine of Bangladesh: Interviews with Pioneer Professors

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The year 2022 marks the 60th anniversary of Nuclear Medicine (NM) of Bangladesh. NM started its journey in late fifties under the then Pakistan Atomic Energy Commission (PAEC) at Dhaka Medical College. The first establishment was in 1958, known as 'Radioisotope Centre'- a tin-shed building, which was officially inaugurated in 1962 (1,2). However, being a newly formed department, with limited options of service provisions, not much progress was made until the independence of Bangladesh in 1971. The main development happened later in the 1990s, with establishments of new centers and introduction of new radiopharmaceuticals and instrumentations. One of the key players in this development has been Bangladesh

institutes are under the government set up; while 5 centers are privately owned (3, 4). In the past 60 years, country has witnessed massive expansion of facilities and services in NM. Currently, we are using state of art technologies like PET-CTs and Cyclotron in different institutes. In this long journey of development, there were a number of key individuals who dedicatedly worked for taking NM to this new height. This editorial highlights the contribution of three of these timeless treasures who shaped what NM is today.

Dr. Kamaluddin Ahmed is considered as the father of NM of Bangladesh. He was born in Laxmipur district in the year 1939. Among the 13 siblings, he is the 12th. He lost his father at the age of 10 years. His elder brother admitted



Young Professor Dr. Kamaluddin Ahmed



A Lively interview with legendary Professor Dr. Kamaluddin Ahmed

Atomic Energy Commission (BAEC), under the Ministry of Science and Technology. At present, there are 16 fully functioning NM institutes under BAEC, and another 7 establishments are under development. Most of the NM

him in Dhaka's Muslim High School after discovering his excellent academic performances. Dr. Kamaluddin completed his HSC from Jagannath College and started studying at Dhaka Medical College for his MBBS. He

obtained third position in the final professional examination of MBBS and planned to be a surgeon. However, Professor Asiruddin, the then head of department of surgery of Dhaka Medical College, recommended him to pursue his career in NM, which did not exist in this region at that time. His first job was with the then PAEC in Karachi and selected by the International Atomic Energy Agency (IAEA) for higher education in London in 1960. In 1965, he received his master's degree on Radiation Biology and Physics from the Royal Free School of Medicine. After that he returned to Dhaka and tirelessly worked to establish NM Centre in Chittagong from 1970 to 1978. In 1980 he was given the responsibility to establish the Institute of Nuclear Medicine (INM) in Dhaka. Initially, INM was planned to establish at Atomic Energy Research Establishment (AERE) campus at Savar. But as a physician Prof. Kamaluddin knew that the best place to serve more patients would be Dhaka city. So, he persuaded the then director of the IPGMR, the National Professor Dr. Nurul Islam, to allot a space at IPGMR campus in Dhaka. Finally, in 1984, INM was established on the 4th level of Block A of the IPGMR. He was there till 1992 as a director and did all that was possible to make it a center of excellence technically as well as academically. He was the initiator in founding the post graduate NM Diploma (DNM) course at INM. The first ultrasonography machine was introduced in the country under his leadership in 1982. As a recognition of his skill in development in the field of NM, IAEA selected him as an expert to establish and upgrade different NM centers in Africa e.g. Zambia, Kenya, Sierra Leone and Ethiopia. Dr. Kamaluddin was the founder president of Society of Nuclear Medicine, Bangladesh (SNMB) in 1993. Among his many qualities; remarkable was his punctuality, compassion for his junior colleagues. He was meticulous in his job and would expect same from people around him. He used to consider all of his co-workers and employees as his family members.

It would be incomplete if his late wife Hasina Begum's contribution is not acknowledged, who stood by his side through all of his difficulties. Mrs. Hasina who was a teacher by profession, would always take care of the household so that he could concentrate on his job. Dr. Kamaluddin is blessed with three brilliant daughters.

I used to be nervous in any type of interactions with our respected and beloved Kamal Sir, though he was always

fatherly. I am his direct student; even recall his gorgeous appearance during my job interview. When I was assigned to take our beloved Sir's interview, I felt honored, happy and excited. I visited his home along with my colleague Prof. Fatima Begum taking prior appointment from sir's eldest daughter Dr. Nasim Khan. I was delighted to see sir's peaceful face (a face of pious man). Sir was so pleased to see us and asked his daughters to entertain us with snacks. He gave us his heartfelt cooperation.

We asked him following questions: We are going to celebrate the Silver Jubilee conference of SNMB, what is your feeling as founder president of SNMB? We also wanted to know his views regarding our progress in NM field and asked how he envisions the future of NM.

Dr. Kamaluddin expressed his satisfaction on the progress of NM in Bangladesh. He had two wishes: one, to upgrade the NM institutes outside Dhaka, and the other, to improve the therapeutic application of NM in Bangladesh.

**Prof. Dr M A Karim** is the legendary NM leader of Bangladesh. A valiant freedom fighter, Prof. Karim graduated from Rajshahi Medical College in 1972-73



**Prof. Dr M A Karim**

after the liberation war in 1971. He joined the ministry of health after passing MBBS but witnessing some irregularities in his department made him quit his job as a protest. Later, he joined BAEC in 1974, when there were only three NM centers located in Dhaka, Chittagong and Rajshahi with limited facilities and services. Prof. Karim recalled that there was no gamma camera for diagnostic imaging and only rectilinear scanner was used.

Prof. Karim went to USA and completed his fellowship training in NM from MD Anderson Hospital, Texas University in 1979-1980. The fellowship training has tremendously inspired him to develop NM in Bangladesh. Later, as an International Atomic Energy Agency (IAEA) Nuclear Medicine expert, he also helped to develop NM facilities in countries like Ethiopia, Yemen, and Sierra Leone.

Prof Karim was the founder member and first General Secretary of SNMB and also served as President of SNMB from 1995 to 2006. He was one of the founder member of Asian Regional Cooperative Council for Nuclear Medicine (ARCCNM) in 2001. He received 'Lifetime Achievement Award' from ARCCNM and World Association of Radiopharmaceutical and Molecular Therapy (WARMTH) for expansion and development of Nuclear Medicine in Bangladesh as well as in Asian region. He was also awarded a Gold Medal by WARMTH in 2020 for his contribution in NM. He is blessed with a son and daughter, both are physicians.

Karim Sir was a visionary leader who always encouraged us to attend national and international conferences. So, it was my privilege to interview such a person who has dedicated so many years in developing SNMB and boosting the global level of NM and SNMB. I was amazed to visit his home. He welcomed me so vibrantly with his family that I was speechless.

I asked him how he felt being a pioneer physician of NM as we are going to celebrate the Silver Jubilee conference of SNMB. We also wanted his views on the present situation of NM in Bangladesh and asked his advice for the future NM personnel.

Prof. Karim expressed his satisfaction with current status of NM in Bangladesh. NM has come a long way since his time with the introduction of state-of-the-art SPECT, SPECT-CT, and PET-CT with our own cyclotron facility.

Most advanced diagnostic methods are being used successfully in almost all of the NM institutes of the country. He wished for our future generation to be the forerunners in the advancement of therapeutic NM in both our country and around the world.

**Prof. Dr. Fauzia Moslem** is the pioneer woman NM physician in Bangladesh and a brave freedom fighter of our historic liberation war in 1971. She was graduated from Dhaka Medical College in 1970. After liberation of



**Prof. Dr. Fauzia Moslem**

Bangladesh she served as a Medical Officer in Directorate General of Health Services. Later, she joined BAEC as a Medical Officer of NM in 1975, which she thought to be a fascinating field of medicine with no emergency. Throughout her career she served as the director of different NM centers, institutes and Bioscience Division of BAEC. She was actively involved in the introduction and development of a course curriculum for post graduate diploma in NM (DNM), which was upgraded to M. Phil later on. Amongst many scientific projects conducted by her the most remarkable one was the newborn screening for congenital hypothyroidism. Laboratory facilities were developed under that program and hopefully the screening procedure will be included in neonatal health program in national level in near future. She was also a pioneer in the field of ultrasonography when it was first introduced in

1982 at INM and founder President of Bangladesh Society of Ultrasonography in 1989. She has also dedicated her life to the advancement of ultrasonography in Bangladesh since then. She is a proud life member of several professional societies. Currently, she is the President of Bangladesh Thyroid Society (BTS) and chair of the Medical Research Ethics Committee of NINMAS.

Prof. Dr. Fauzia Moslem was always active in people's rights, which led her to become involved in a variety of political and social activities from the beginning of her student life. To make her dream a reality as a social worker, she has been working as a women's rights activist in Bangladesh with a organization called 'Mohila Porishod' since 1970 and currently holds the prestigious position of President of that organization. She was able to develop the first women human rights training module entitled 'Nari Jagoron O Mukti'. She has been honored with several awards during these years such as 'Ananya Shirsho Das Podok' from Ananya in 1999, 'Lifetime Achievement Award' from SNMB in 2004, 'Freedom Fighter Award as Physician' from doctors for health and environment in 2013, 'Gunijon Sommanona 2015' from Manob Adhikar Natyo Porishod. She received the 'Mohila Bir Muktijodhader Sonmanona 2022' from Ministry of Women and Child Affairs, Govt. of Bangladesh. She is blessed with two beautiful and bright daughters.

Fauzia apa ('apa' a Bengali word meaning elder sister) as she is commonly known throughout her ages is an evergreen beauty and her pro-active lifestyle have always inspired me. Fauzia apa has been a role model for many women like me. Her exceptional simplicity has left an

indelible impression on all of her descendants, and she is known as an easy going personality by people of all ages. Prof Fatima and I were impressed when she welcomed us cheerfully from the street in front of her house, wearing "ek peche saree" that symbolize the classic "Bengali Nari." We had a great time interviewing her while drinking Lebu'r Sorbet made by her. It was a memorable morning of cheerful conversations.

We asked how she feels as a pioneer woman NM physician on the occasion of Silver Jubilee of SNMB. She shared her initial experiences during her NM journey and her views regarding the present scenario. She also expressed that she is hopeful about the current standard of NM profession. She can only imagine a bright future for NM in Bangladesh with strong and active leadership and more emphasis on therapeutic NM. She truly believes that future generations would contribute significantly to theranostics and help Bangladesh to become a global leader in NM.

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